

HEALTH DISPARITIES RESEARCH EMBRACING CHANGE

**Minority Health and Health Disparities
Grantees' Conference
National Harbor, Maryland**

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What's To Come

- Acknowledging Accomplishments and Successes
- Research Opportunities
- Conquering Health Disparities
- Fostering Health Disparities Research

Important Milestones

1985

Report of the Secretary's Task Force on Minority Health

1986

DHHS establishes Office of Minority Health

1990

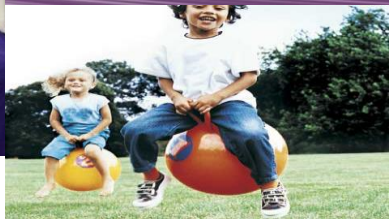
NIH establishes Office of Research on Minority Health

2000

Elevation of "office" to the National Center for Minority Health and Health Disparities

2010

Elevation from "Center" to "Institute"



NIMHD Mission

NIMHD conducts and supports research, training of a diverse workforce, research capacity and infrastructure development, public education and information dissemination programs. NIMHD is the leading entity at the NIH for planning, reviewing, coordinating, and evaluating minority health and health disparities research activities conducted by the NIH Institutes and Centers.

Some NIMHD Innovative Programs

- The Research Endowment Program
- Research Centers in Minority Institutions
- Centers of Excellence
- Transdisciplinary Collaborative Centers for Health Disparities Research
- Minority Health & Health Disparities International Research Training
- Health Disparities Loan Repayment Program

Research Centers in Minority Institutions (RCMI)

- Created by Secretary, Department of Health and Human Services in 1990
- Established in National Center for Research Resources at the NIH (Center was abolished and RCMI moved to NIMHD in 2011)
- Dr. Sidney McNairy, Program Officer and a “Distinguished RCMI Champion” (Retired from the National Institute of General Medical Sciences and NIH in 2013)



Endowment Program and Translational Health Disparities Course

- An introduction into the principles and practice of health disparities research
- Course is expected to integrate science, practice and policy perspectives including: “Health Disparities from a Policy Perspective,” “Social Determinants of Health and Health Disparities,” and “Bioethics: Human Research Subjects Protections and Research Integrity”
- Anticipate course will be initiated at other Institutions around the country/globe



NIMHD Stories of Discovery

- Epidemiological study of cardiovascular disease among African Americans (Jackson Heart Study)
- Understanding the burden of obesity and diabetes among native Hawaiians and other Pacific Peoples
- Osteoarthritis management in rural communities
- Investigating the higher incidence and mortality of prostate cancer in African American men
- Biomarkers of HIV dementia risk in Hispanic women
- High prevalence of Hepatitis B in Korean Americans
- Community-based participatory research to improve Native American child passenger safety

Additional Research Highlights

- Unconscious stereotyping of Hispanic patients among medical and nursing students
- Role of genetic differences in tumor suppressive protein, p53, in breast cancer in African American women
- Global inequities in access to prenatal and antenatal care

Some New Opportunities in 2015

- Notice of NIMHD Participation in PA-13-302
“Research Project Grant (Parent R01),” Investigator-initiated mechanism
- NIMHD Academic Research Enhancement Award:
Enhancing Health Disparities Research at
Undergraduate Institutions (R15)
- NIMHD Technologies for Healthy Living: Improving
Minority Health and Eliminating Health Disparities
- Behavioral Interventions to Prevent HIV in Diverse
Young Men Who Have Sex with Men

SCIENCE OF HEALTH DISPARITIES RESEARCH

Health Disparities Definitions

- “A **population is a health disparity population** if there is a significant disparity in the overall rate of disease incidence, prevalence, morbidity, mortality or survival rates in the population as compared to the health status of the general population.” **Minority Health and Health Disparities Research and Education Act United States Public Law 106-525 (2000), p. 2498**
- “**Health inequities** are avoidable inequalities in health between groups of people within countries and between countries. These inequities arise from inequalities within and between societies. Social and economic conditions and their effects on people’s lives determine their risk of illness and the actions taken to prevent them becoming ill or treat illness when it occurs.” **World Health Organization**

Health Disparities Definitions

- **Health disparities** are differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exist among specific **population groups** in the United States. [NIH](#)
- **Health disparities** as differences in the overall rate of disease incidence, prevalence, morbidity, mortality or survival rates. Many different **populations** are affected by disparities including racial and ethnic minorities, residents of rural areas, women, children, elderly and persons with disabilities. [OMH](#)

Minority Health

- **Minority Health (MH)**

Attributes associated with a particular **population group** - often correlated with race and ethnicity – that are unique or found significantly within a cluster

- **Minority Health Research**

- Investigates unique **population** attributes
- Conducts research to identify biological, behavioral, environmental differences/causes

Minority Health and Health Disparity Populations

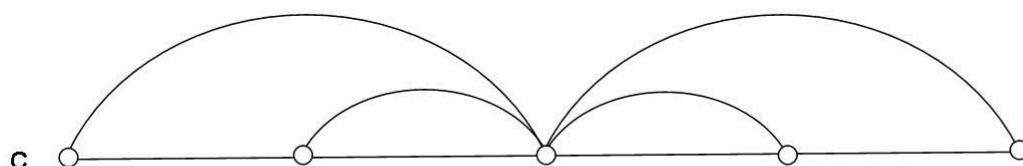
OMB standards – Minority Racial/Ethnic Classification

- African American or Black
- Asian
- American Indian or Alaska Native
- Native Hawaiian or Other Pacific Islander
- Hispanic or Latino

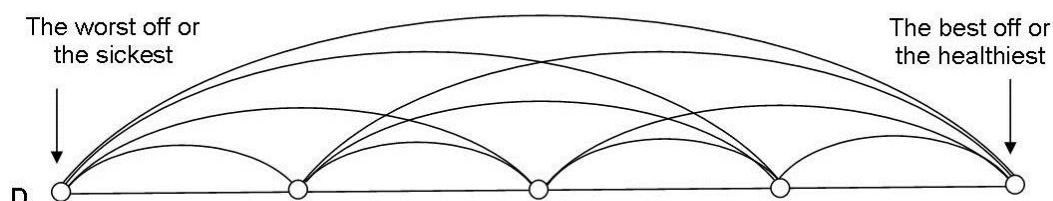
Other Populations with Health Disparities (2012 Health Disparities report AHRQ)

- LGBT Populations
- Rural
- Urban
- Poor (low income)
- Child and Adolescent Health
- Immigrant and Migrant
- Special Needs: Disabled, Chronic Care, End-of-life, Medically Underserved

Measuring Health Disparities



Everyone compared with the mean for example, the index of dissimilarity



Everyone compared with everyone for example, the Gini coefficient

The choice of
the reference
group will
affect the size
of the
disparity

A framework for measuring health inequity — Asada, Y 2005

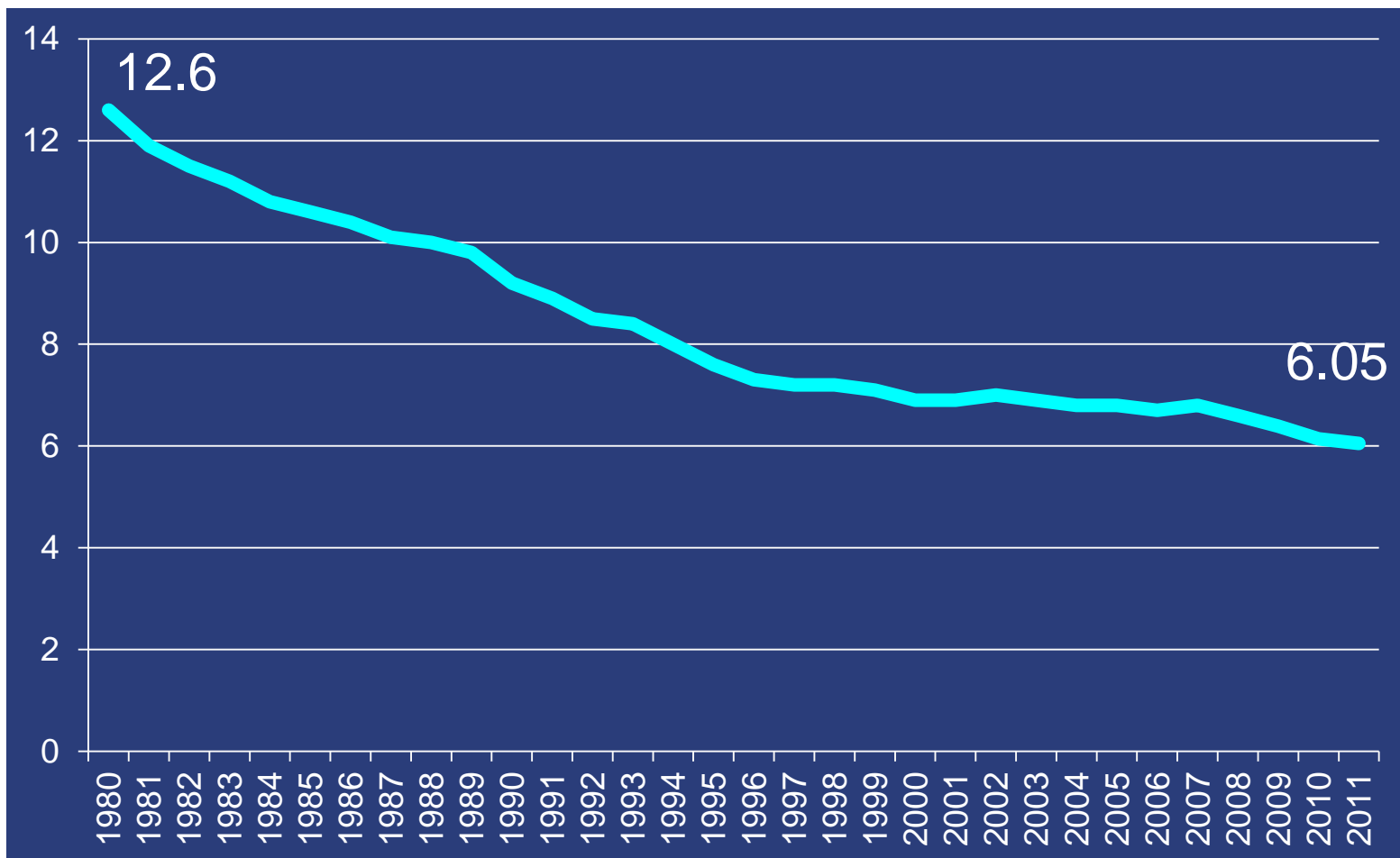
Reference Group or Comparison

In 2000, HHS Launched Initiative to Reduce Health Disparities in Six Priority Areas

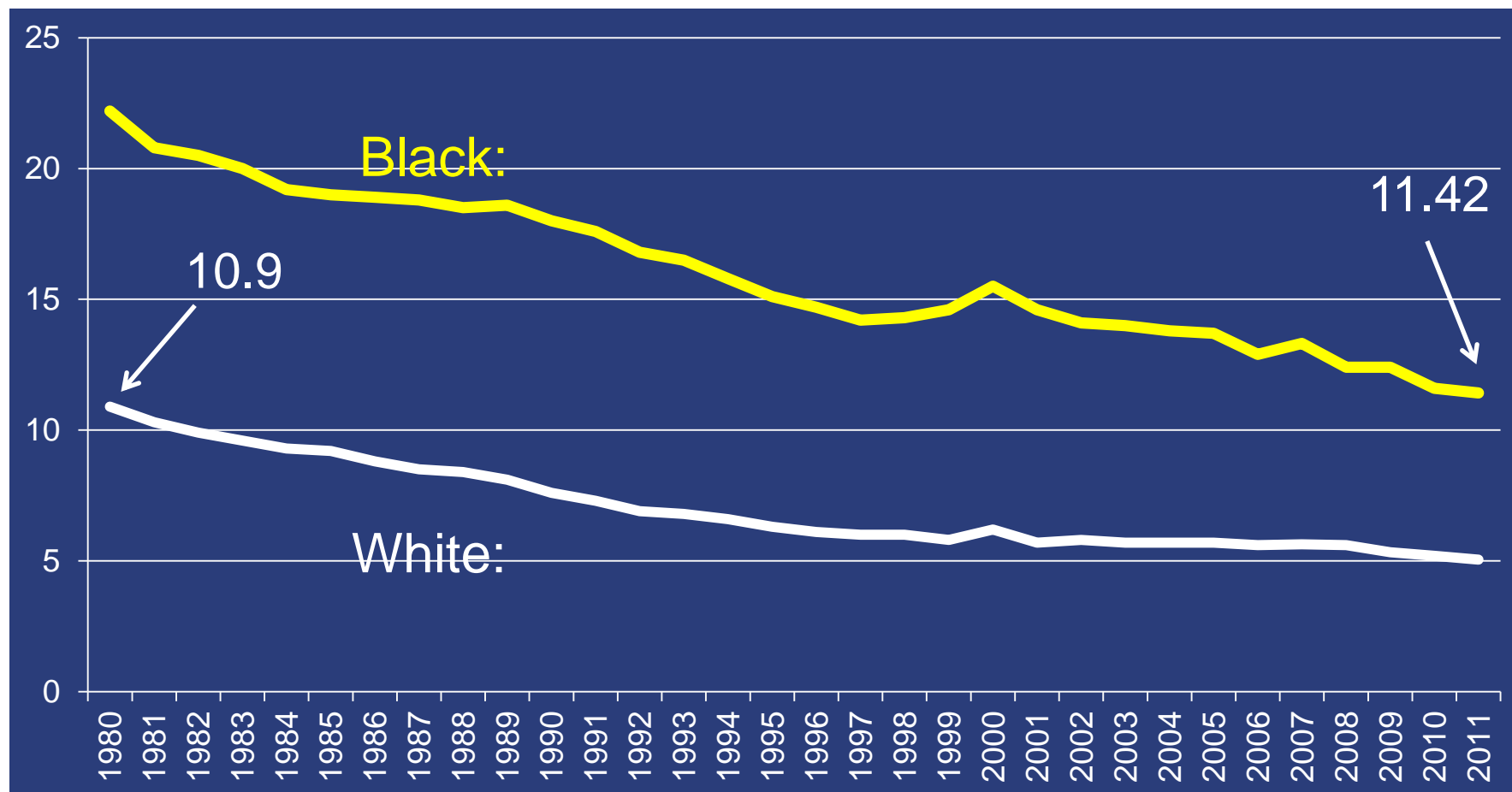
- Cancer
- Diabetes
- HIV/AIDS
- Cardiovascular Disease
- Immunizations
- Infant Mortality



U.S. Infant Mortality Rates: 1980-2011 (per 1000 live births)



U.S. White and Black Infant Mortality Rates: 1980-2011 (per 1000 live births)



Infant Mortality

An iceberg floating in dark water under a cloudy sky. The visible tip of the iceberg is labeled with causes of infant mortality. The much larger submerged part of the iceberg is also labeled, illustrating that the visible causes are only a fraction of the total problem.

Premature Births

Congenital Anomalies

SUID

Maternal Pregnancy Complications

Placental or Cord Anomalies

Infant Mortality and Health Disparities

Health Determinants

Racism

*Fatherless
households*

Poverty

Limited Access
to Care

Biology

Neighborhoods

No Insurance

Housing

Under-
Education

Lower graduation rates

Poor Working Conditions

Teen Births

Genetics

Unemployment

“Medical baggage”

Smoking

Family Support

Nutrition

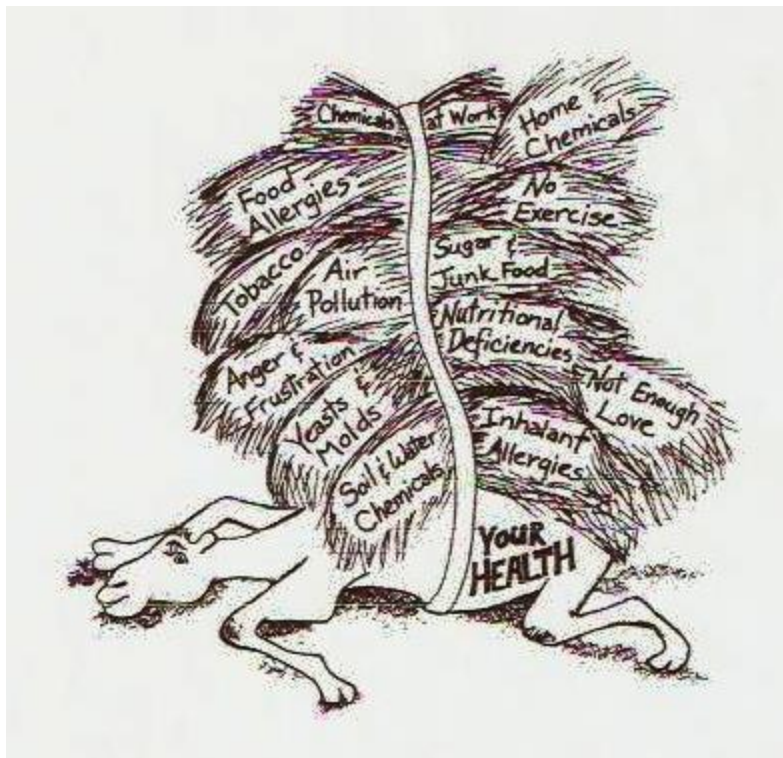
Incarceration rates

Hopelessness

Stress

Substance Use

Disparities & Allostatic Load



Commonly used variables

Physiologic stress response hormones; e.g. cortisol, epinephrine and norepinephrine, dopamine, insulin-like growth factors, Dehydroepiandrosterone sulphate (DHEA-s)

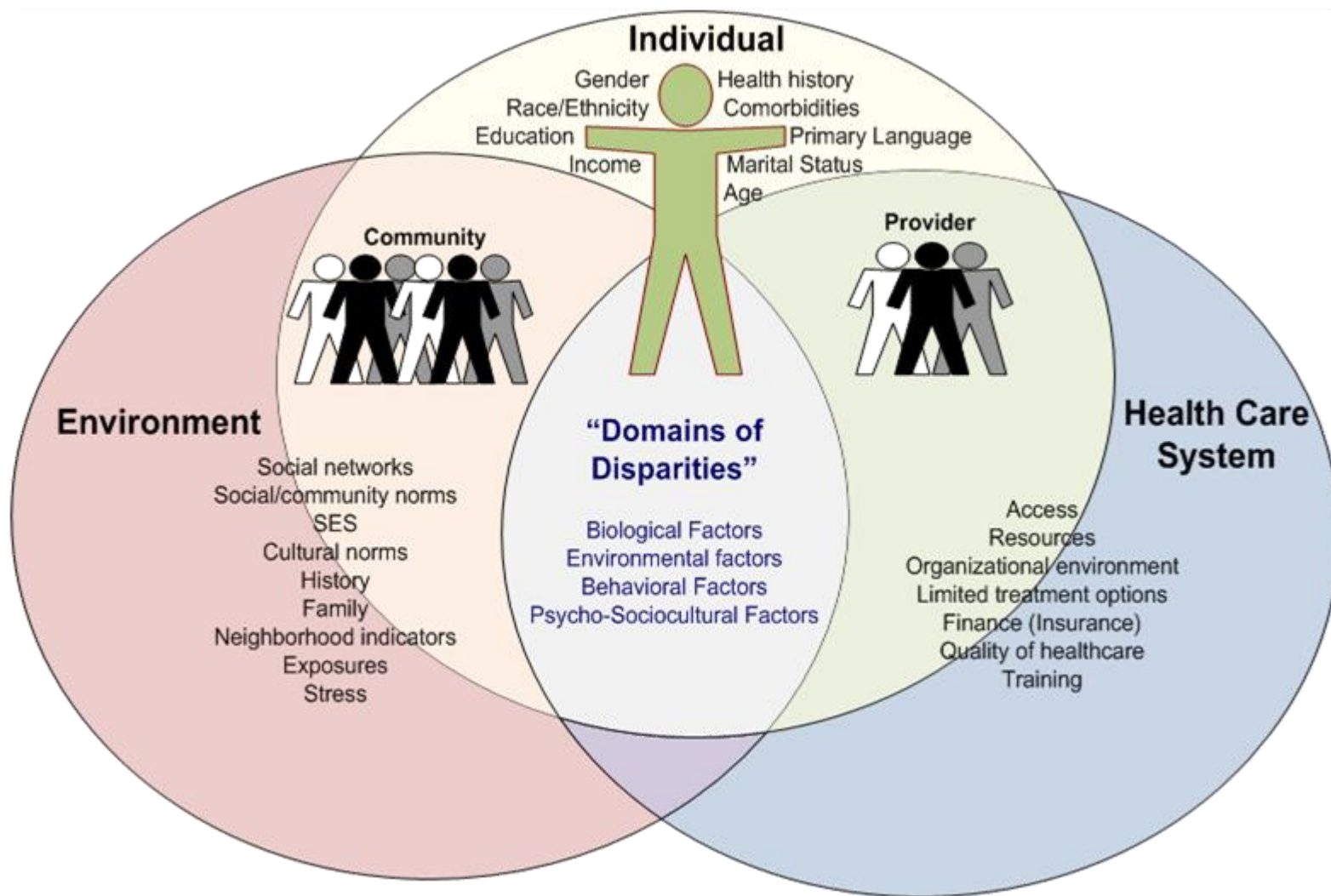
Metabolic markers; e.g. glycosylated hemoglobin (HbA1c), fasting and postprandial glucose, and waist hip ratio

Cardiovascular variables; e.g. systolic and diastolic blood pressure, HDL and total cholesterol

Inflammation markers; e.g. albumin, C-reactive protein, interleukin-6, tumor necrosis factor

Measures of organ function; e.g. creatinine function, homocysteine

Complexity & Interactive Domains



Health Disparities Research

- Determines which combination/patterns of attributes and differences results in a health disparity condition (higher incidence, earlier onset, faster progression, poorer outcomes)
- Assesses known information in order to understand how to impact disparities - what, where, when, how, who
- Designs and tests interventions to reduce these disparities

Health Disparities Research Model

1

- Identify differences among **populations** (MH)

2


- Validate if, how & when these differences lead to health disparities (HD)

3

- Design interventions to reduce health disparities (HD)

FRAMEWORK
FOR
IDENTIFYING,
UNDERSTANDING
AND
REDUCING
HEALTH
DISPARITIES

Science of Health Disparities

1. Target one or more of the following:
 - Higher incidence/prevalence
 - Earlier onset
 - Faster progression
 - Poorer outcomes
2. Examine health determinants interactions to verify contributing factors
3. Use results to determine the best intervention, applied at optimum time points
4. Test intervention to impact health disparity
5. Validate intervention – generalizability studies
6. Assess impact on health disparity–Measure variables and determine if intervention/process reduced the disparity
7. Disseminate findings into practice and communities

Summary: Opportunities/Challenges

- Creating a better understanding of the “Science of Health Disparities Research”
- Enhancing opportunities for investigator-initiated research
- Developing initiatives to engage a more diverse participation of biomedical and behavioral scientists in the field of health disparities research
- Increasing the participation of minority populations in clinical research
- Enhancing international/collaborations to leverage resources and insure research is conducted and translated to improve health

**2014**MINORITY HEALTH &
HEALTH DISPARITIES
GRANTEES' CONFERENCETRANSDISCIPLINARY COLLABORATIONS:
Evolving Dimensions of US and Global Health Equity

Summary (continued)

- Continuing to focus on populations that bare an unequal burden of poor health outcomes
- Engaging communities in health disparities research
- Training and mentoring will involve collaborations with the NIH intramural and extramural diversity programs
- NIMHD has a unique role to conduct and support research on the social, behavioral, and biological determinants of health

Prescription

(Not to be used to obtain medication
or to contradict your own doctor's advice)

United States Surgeon General

Best Health Wishes
David Satcher

- ☐ Moderate physical activity, at least 5 days/week, 30 min./day
- ☐ Avoid toxins — tobacco, illicit drugs, and abuse of alcohol
- ☐ Eat at least 5 servings of fruits and vegetables a day
- ☐ Responsible sexual behavior; abstinence where appropriate

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BEST HEALTH WISHES

“AS THE HEALTH DISPARITIES RESEARCH FOUNDATION IS ESTABLISHED, WE WILL BUILD TO IMPROVE THE HEALTH OF DISADVANTAGED POPULATIONS.”

Yvonne T. Maddox, Acting Director, NIMHD